

CLAIMS

1. A loose, particulate material consisting of silica sand grains coated with an elastomeric coating material, wherein the coating material comprises a thermoplastic polymer having a melt index of 20-40 g/10 min and Shore A hardness of 40-90.
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2. A material according to claim 1, wherein the coating material constitutes 2-8 % by weight of the silica sand, preferably 4-6 % by weight.
- 10 3. A material according to claim 1 or 2, wherein the thermoplastic polymer comprises 2-8 % by weight of the silica sand, preferably 4-6 % by weight.
4. A material according to any of claims 1-3, wherein the silica sand grains are of an overall diameter in the range of 0.1 mm to 2 mm, preferably in the range of 0.2 mm
15 to 1.5 mm, and most preferred in the range of 0.4 mm to 0.9 mm.
5. A material according to any of the preceding claims, wherein the melt index is 25-35 g/10 min.
- 20 6. A material according to any of the preceding claims, wherein the Shore A hardness is 50-80, preferably 60-75.
7. A material according to any of the preceding claims, further comprising a coupling agent provided between the silica sand grains and the elastomeric coating material, so
25 as to improve the binding between the grain and the coating material.
8. A material according to claim 7, wherein said coupling agent is selected from the group consisting of
bifunctional silane comprising a reactive amino group and a hydrolyzable
30 inorganic triethoxysilyl group,

terpolymer comprising glycidyl methacrylate (GMA) groups, and
terpolymer comprising maleic anhydride (MAH) groups.

9. A method of producing a loose, particulate, coated bulk material, comprising the
5 steps of
heating a portion of silica sand to a temperature within the range of 200° to
300° C,
placing said portion of sand in a mixer comprising mixing means,
adding a portion of a thermoplastic polymer to the content of the mixer under
10 continued operation of the mixing means,
adding a predetermined amount of water to the content of the mixer under
continued operation of the mixing means, and
directing an airflow through the content of the mixer so as to lower the
temperature thereof.
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10. A method according to claim 9, wherein airflow is continued until the
temperature of the content of the mixer is below 80° C, preferably below 60° C.
11. A method according to claim 9 or 10, wherein the predetermined amount of water
20 is 3 to 15 % by weight of the sand, preferably 5 to 10% by weight of the sand.
12. A method according to any of claims 9 to 11, wherein the thermoplastic polymer
has a melt index of 20-40 g/10 min and Shore A hardness of 40-90.
- 25 13. A method according to any of claim 9 to 12, wherein the thermoplastic polymer
comprises 2-8 % by weight of the silica sand, preferably 4-6 % by weight.
14. A method according to any of claims 9-13, wherein the silica sand grains are of
an overall diameter in the range of 0.1 mm to 2 mm, preferably in the range of 0.2
30 mm to 1.5 mm, and most preferred in the range of 0.4 mm to 0.9 mm.

15. A method according to any of claims 9-14, wherein the melt index is 25-35 g/10 min.
- 5 16. A method according to any of claims 9-15, wherein the Shore A hardness is 50-80, preferably 60-75.
- 10 17. A method according to any of claims 9-16, wherein a coupling agent is added to the mixer prior to the thermoplastic polymer, so as to provide a layer of the coupling agent on the surface of the silica sand grains before the thermoplastic polymer is added to the content of the mixer, thereby improving the binding between the grain and the thermoplastic polymer.
- 15 18. A method according to claim 17, wherein said coupling agent is selected from the group consisting of
bifunctional silane comprising a reactive amino group and a hydrolyzable inorganic triethoxysilyl group,
terpolymer comprising glycidyl methacrylate (GMA) groups, and
terpolymer comprising maleic anhydride (MAH) groups.
- 20 19. A sports surface comprising a loose, particulate material according to any of claims 1-8.
- 25 20. A sports surface according to claim 19, further comprising a pile fabric which is at least partly submerged in a layer of said loose, particulate material.
21. A method of providing a sports surface, wherein coated grains according to any of claims 1 to 8 are spread in a layer on a surface.

22. A method according to claim 21, wherein the coated grains are spread on a pile fabric to form a layer in which the fabric is at least partly submerged.